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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,879	11/28/2001	Hung Tsi Liu	LIUH3003/EM	8042

23364 7590 03/30/2005

BACON & THOMAS, PLLC
625 SLATERS LANE
FOURTH FLOOR
ALEXANDRIA, VA 22314

EXAMINER

HOLMES, MICHAEL B

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/994,879

Applicant(s)

LIU, HUNG TSI

Examiner

Michael B. Holmes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: Detailed Office Action.



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Examiner's Detailed Office Action

1. This Office Action is responsive to application 09/994,879, filed November 28, 2001.
2. Claims 1-3 have been examined.

Specification Objection

3. In the specification, item 4 of Figure 1, has not been addressed. Moreover, the process boxes of Figure 2, need to be labeled.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

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do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claim 1 are rejected under 35 U.S.C. 102(e) as being anticipated by *Stepp, III* (USPN 6,487,463).

Regarding claim 1. *Stepp, III* describes a computer temperature control system installed in a host computer and adapted for controlling the inside temperature of said host computer [see FIG. 3, C 5, L 45-67], comprising:

a plurality of cooling fans mounted inside said host computer [see FIG. 3, item 316, C 6 L 1-13];

a main processing unit mounted in said host computer and adapted for setting the desired temperature level and controlling the revolving speed of said cooling fans subject to the set temperature level [see FIG. 3, item 320, C 6 L 14-33];

a fan speed control loop connected between said main processing unit and said cooling fan and driven by said main processing unit to control the revolving speed of said cooling fans [see FIG. 3, item 320, Fan C (1 ... N) & Fan M (1 ... N), C 6 L 14-33 & L 49-62 *Examiner interprets the leads output Fan C, from item 320 input to items 314 & the leads output from items 314 input to item 320 as a control loop*];

a plurality of temperature sensors respectively mounted inside said host computer adjacent to said cooling fans and adapted for detecting the ambient temperature around said cooling fans respectively [see FIG. 3, item 314, C 5 L 56-67];

an analog-to-digital converter connected between said temperature sensors and said main

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processing unit and adapted for converting analog temperature signal from each of said temperature sensors into a corresponding digital temperature signal and outputting the corresponding digital temperature signal to said main processing unit for comparison with the corresponding pre-set temperature level for enabling said main processing unit to control the revolving speed of the respective cooling fan subject to the respective comparison result [see FIG. 2, item 200 & 216, C 5, L 24-44, C 6, L 34-48 *Examiner interprets this functionality capable of providing an analog-to-digital interface through the I/O devices 218-222*].

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 & 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Stepp, III* (USPN 6,487,463 B1) and further in view of *DigitalDoc5, Thermal Sensor, Fan & Voltage Monitor, User Manual & Installation Guide* © Copyright 2000.

The *Stepp, III* reference has been discussed above and does not explicitly teach the limitations embodied in claims 2 & 3. However, *DigitalDoc5*, teaches the limitations of claims 2 & 3.

Regarding claim 2. *DigitalDoc5* teaches the computer temperature control system as claimed in claim 1 further comprising a control panel mounted on a front sidewall of said host computer,

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said control panel comprising a set of data entry buttons respectively connected to said main processing unit for data input [see front cover sheet of User Manual, it would have been obvious at the time the invention was made to a persons having ordinary skill in the art to combine *Stepp, III* with *DigitalDoc5*, because the new generation *DigitalDoc5* thermal sensor is the only automatic monitor of system temperature, fans, and voltage, simultaneously scanning eight temperature setting and eight fans, as well as the stability of the +5 to +12 VDC power supply (page 3)].

Regarding claim 3. *DigitalDoc5* teaches the computer temperature control system as claimed in claim 2, wherein said control panel comprises a liquid crystal display for data output from said main processing unit [see front cover sheet of User Manual, it would have been obvious at the time the invention was made to a persons having ordinary skill in the art to combine *Stepp, III* with *DigitalDoc5*, because the new generation *DigitalDoc5* thermal sensor is the only automatic monitor of system temperature, fans, and voltage, simultaneously scanning eight temperature setting and eight fans, as well as the stability of the +5 to +12 VDC power supply (page 3)].

Correspondence Information

9. Any inquires concerning this communication or earlier communications from the examiner should be directed to Michael B. Holmes, who may be reached Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. or via telephone at (571) 272-3686 or facsimile transmission (571) 273-3686 or email Michael.holmesb@uspto.gov.

If you need to send an Official facsimile transmission, please send it to (703) 746-7239.

If attempts to reach the examiner are unsuccessful the Examiner's Supervisor, Anthony

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Knight, may be reached at (571) 272-3687.

Hand-delivered responses should be delivered to the Receptionist @ (Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22313), located on the first floor of the south side of the Randolph Building.

A handwritten signature in black ink, appearing to read "Michael B. Holmes". The signature is fluid and cursive, with the first name "Michael" being the most prominent part.

Michael B. Holmes

Patent Examiner

Artificial Intelligence

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United States Department of Commerce
Patent & Trademark Office

Monday, February 14, 2005

MBH